EVIDENCES

—OF—

ANCIENT CIVILIZATION

IN AMERICA,

—CONSTITUTING A—

Lecture Delivered on Behalf of the Mechanics' Institute,

—ON—

TUESDAY, 1ST OF MARCH, 1870,

—BY—

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ERRATA.

In 12th and 21st lines from top of 1st column, on 1st page, for the word *tunnels* read *tumuli*.

In 10th line, 1st col. 2nd page, for *pallices* read *palaces*.

In 22nd line, ditto, for *tumrelus* read *tumulus*.

In 37th line, 2nd col. 2nd page, the word *seeming* should read *seem*, and in 38th line the word *seems* should read *appears*.

In 1st line, 1st col. 3rd page, for *mention* read *refer to*.

In 3rd line, ditto, for *has* read *have*.

In 12th line, 2nd col. 5th page, for *Atlandes* read *Atlantides*.

In 31st line, ditto, for *Towarik* read *Touarik*.

In 33rd line, ditto, for *Cettiberean* read *Celtiberean*.

In 37th line, 1st col. 6th page, the word *Canu* should be *Canute*.

In 18th line, 2nd col. 6th page, *ruguieres* should read *Bruguieres*.

In 50th line, 2nd col. 13th page, for *fossiliferous* read *coraliferous*.

"Evidences of Ancient Civilization in America."

A Lecture delivered for the Guelph Mechanics' Institute, on Tuesday, 1st March, 1870, by Dr. W. E. Bessey.

LADIES AND GENTLEMEN.—We are met this evening to take into consideration some of the evidences of an ancient civilization which have been found to exist in the American continent. The immense deserts of the west afford an interest beyond that of their natural beauties: they offer a wide field to the *archeologist* and the *antiquarian*, whose every footstep is met by countless ruins, the origin of which disappears in the night of time. These monuments of an extinct civilization, which include mounds, tunnels, fortifications of immense proportions, gardens, wells, artificial meadows, ruins of towns and cities, once wealthy and populous, are to be found scattered throughout the continent, from Peru on the south and Mexico on the west, to Lake Superior on the north and Florida on the east.

The valleys of the Ohio and Mississippi abound in ancient mounds, tunnels, extensive fortifications and traces of wells, salt mines, and artificial meadows, which speak in unmistakeable terms of a long period of time, during which a numerous and powerful people of settled agricultural habits had made considerable progress in civilization, so as to require large temples for their religious rites, and extensive fortifications to protect them from their enemies. Near the river Gila, on the banks of the Blue river, the Black river and the St. Charles, and upon an alluvial soil, which reposes upon basaltic rocks, the remains of ancient colonies are very numerous. Rows and piles of stones show the plan of houses, though nearly obscured by the accumulated soil of ages. Here is seen a ruined circular stone wall about 250 yards in circumference, with an entrance on the eastern side, and containing in its centre the ruins of a dwelling, in which no traces of wood exist; $\frac{3}{4}$ of a mile from here the soil is strewn with enormous remnants of spacious edifices, which contained rooms 15 feet square. In most of these the traces of decaying cedar wood have been found amidst the fragments of painted pottery. These houses are surrounded by a rampart 300 yards in length. Speaking of this locality one writer observes: "Subterranean fires appear to have ruined all this country and converted it into a barren waste; the country may also have been deserted in consequence of volcanic convulsions spreading death and misery among the inhabitants." All this region of country seems once to have been very populous, judging from the walls, houses and remains of pottery met at every step. Near the Rio Grande, in the Apache territory, is a *copper mine*, which shows distinct traces of ancient workings. A little to the east are lofty rocks, (the *Sierra Madre*) traversed by veins of copper, so richly mixed with gold that the ore was formerly transferred to Mexico for the purpose of smelting and separation. An ancient fort is here erected, of a square shape with a tower at each corner. The walls are four feet thick and in a state of tolerable preservation. The banks of the Rio Verde abound in ruins of stone dwellings and fortifications, which appear to have belonged to a more civilized people than the Aztecs. They are found in the most fertile valleys, where traces of former cultivation, and of small canals for artificial irrigation are yet visible.

The solidly built walls of these dwellings are twenty and thirty yards long, to thirty or forty-five feet high, and from four feet thick at the base, gradually taper to the top. The houses were four storied, with small openings for doors, windows, and loop-holes for defence against outside attacks. Excavations among these majestic ruins, have yielded abundant fragments of beautiful pottery, red, yellow, black, striped, scolloped, and ornamented, with brilliantly colored paintings. Of the ruins in New Mexico, the most modern are the *pueblos* or stone dwellings, they comprised usually a main portion and two receding wings at right angles to the main part, from the extremities of which extended a circular wall enclosing a large yard or court. They had the appearance of an immense barrack, being of four stories high, each receding from the preceding one, like a series of terraces, rising above one another. The outside wall had no openings in the first or lower story, and each story is reached from the court or yard, having no doors, by ladders, which can be drawn up after the inmates, thus giving no opportunity for the enemy to enter. The smaller details of these structures are indicative of much art and ingenuity. Some of them appear, in the distance, like splendid mosaic-work, being constructed of stones of various colors. They are built of small, flat slabs (in some cases) of very fine grained sandstone (a material never used in any of the modern monuments of Mexico,) and the walls show no trace of cement, the intervals being neatly filled up with small coloured pebbles, incrusted in mortar made without lime. Remains of ancient towns are extremely numerous in the country of the Zunis, the Navagos and Jamez. But it is more than probable that the pueblos which I have just re-

ferred to were the construction of the Aztecs or Toltecs. However all these towns are so ancient that no Indian tradition makes any mention of them.

Humbolt, speaking of these remains of the unknown past, in which might be included the ruins of populous cities, possessed of much grandeur, the wonderful signs of mechanical and architectural science which are manifest in the construction of the pallices of Tezcotzinco, the temple of Xochicalco, and the colossal stone calender of Mexico, says: "Certain it is that they are the work of a great people, of an intelligent nation, whose civilization was far superior to that of the actual tribes."

These ancients seem to have possessed a knowledge of astronomy, as all their structures had either four entrances, four corners or towers, answering to the four cardinal points. Among the Casses Grandes are met numerous ruins, among which is a tumrelus, surrounded by an earthen wall 100 yards in circumference. A little from this is a large round terrace, 100 yards by 70, supporting a pyramid thirty feet in height by twenty-five yards at its summit, commanding a view of a plain extending north, east and west on the left bank of the *Gila*. The Pimas Indians have a legend connected with these ruins, which runs thus: "They pretend that these constructions were erected by the son of the most beautiful woman that ever existed, and who formerly lived in the neighboring mountains. Her extreme beauty caused her to be loved by a multitude of suitors but she refused to marry; when they visited her they paid her tribute, and by means of this resource she provided for the people during times of famine, without provisions ever falling short. At length one day she fell asleep, and from a dewdrop descending and falling upon her bosom, she conceived, and gave birth to a son, who built these houses and many others to the north and south west. Among all these ruins are found beads and painted pottery, *perforated shells*, which antiquarians believe were used as coins or ornaments.

The valleys of the Mississppi and Ohio rivers are rich in monuments of various kinds, dating from a period anterior to the historical era. In Ohio alone the number of ancient mounds, wells, &c. have been estimated at ten thousand. The American mounds are divided by antiquarians into four classes, viz: altars, tombs, temples, and tumuli of no determinate character. Out of 100 examined 60 had served as temples; twenty for tombs; and the rest were places of observation or mounds the uses of which could not be determined. Their plan and construction differ according to the situation.

In the vicinity of the great lakes, and in the States of Wisconsin, Iowa, Michigan and the western territories they are made of earth, of conical form or in the shape of animals, birds and reptiles or even in that of man. Appearing like immense *Bassi relievi* carved out on the soil by the hand of giants. In the interior of these monuments relics of art have been discovered belonging to a very ancient period, and consisting of personal ornaments, domestic utensils and articles connected with religious worship, made of different metals and of *Pietra dura*, also polished stone and copper implements.

In the valley of the Ohio, these earth works are larger, more numerous and of a more regular construction, in many instances surrounded by earth works or stone walls, and give the best indication from their number and size, of the mightiness or at least the multitude and superiority of the populations by which they were constructed. Advancing southward these antiquities are remarkable for the great regularity of their structure and their extraordinary size, and in these southern parts only, have traces of brickwork been detected in their construction. In Florida and Texas these mounds are composed of several stories, somewhat resembling a Mexican *Teocallis* in their pyrmidal form, dimensions, lofty passages, spacious terraces, and long avenues, they are often surrounded by smaller ones placed at regular intervals, some with paths winding around them from the base to the summit; others have gigantic steps like slips in European fortifications.

Enclosures are rare in Florida but those of a military character have been discovered in the *Carolinas*. Courts or ampitheatres seeming to exist in the far South, the object seems to have been that of public amusement, as in the ampitheatres of Rome. The tetragonal terraces are apparently foundations for elevated fortifications, while the pyramidical hillocks are supposed to have served as observatories commanding a view of a wide extent of country. In Florida frequent vestiges of extensive roads are met with, some running in a straight line for 60 to 75 miles. These highways were elevated above the surrounding plain, and appear to have led to the great centres of population, of which traces still exist; after traversing ruins of towns and villages they terminated at the foot of one of these artificial teocalli, or *hill-dwellings* of their chiefs. Few American curiosities are more striking to the imagination than these great roads. The elevated structures or mounds of Florida were usually square shaped, sloping on one side to the road or reached by a series of wide steps, leading to the summit of the monument. The Indian population whom Columbus found here had no knowledge of the origin or uses of these structures, which were covered equally with the surrounding country by forests of gigantic growth. Time will not permit a minute description of the various remains found strewing the surface of the neighboring republic, but in addition

to those mentioned I might mention the immense gardens of unknown origin, whose size and state of preservation has produced in the minds of observers much astonishment. Their perfect preservation is thought to be due to the thick coats of prairie grass, which is so thick and abundant as to form a compact vegetable coating on the surface of the soil. This enables all their sinuosities to be easily traced, and has prevented their surface being overgrown with forest, as obtains in other ruins. They are square or semi-circular, and are divided in parallel lines so as to form a series of ridges or beds two or three yards in width, and are separated from each other by a number of very narrow paths. Domenech gives a description of one above eight miles in extent. No light has been thrown upon the nature of the produce of these gigantic fields, laid out with so much regularity. The finest and best preserved have been found in Michigan, Indiana, the western provinces, and even Texas. Besides these gardens, artificial meadows, many of which were found situated on the borders of woodland, or in the midst of forests, were also cultivated by the agricultural population which inhabited the new world previous to the tribes actually existing. It is believed that from the nature of the country, the configuration of the soil, as well as the agricultural implements of stone and brass found in these meadows, to be plainly shown, that in remote times these regions were covered with trees, which must have been burnt or torn up to make room for pasturage, etc. in the immediate vicinity of human habitations. There are many traces which point directly to the probability that the ancient inhabitants of the continent worked the salt water springs to procure salt. These traces exist in Illinois, where in a salt mine there existed an excavation 135 yards in circumference, in the middle of which a great pit had been dug at some unknown period. A conduit by which the water is supposed to have drained off also existed. In Ohio, the salt mines appear to have been worked, the ancient remains of vases used in the evaporation of water having been found near the mines. In the saltpetre cave of Missouri, hammers and axes similar to those found in the tumuli have been discovered. And in the Lake Superior region are Copper mines which bear unmistakable traces of ancient mining. The ancients appear to have made use of tools of tempered copper, specimens of which have been found in the mines, as also evidences of the use of fire. The marks of similar tools are traceable on the native copper. Evidences of a still later and more rude form of mining have been observed, where rude boulders had been used wherewith to break off the outcropping pieces of ore.

Fortifications of a singularly strategetical character and of immense proportions have been found existing in the vicinity of the Ohio and Missippi rivers. Of these it has been said that "Of all the great works left by the ancient American nations, none are more extraordinary or more worthy of study than those colossal fortifications and vast entrenched camps, protecting and surrounding spaces so very considerable that of necessity they must have been the work of a large population." The precise epoch during which these were constructed is of course quite unknown, but it is evident that they must have been coeval with the most ancient mounds or tumuli, since they are often placed within or in the immediate neighborhood of the fortifications, and in many instances form part of the general plan of defence.

These military constructions are found to consist, sometimes of earth-works thrown up in the form of an immense entrenched camp, or in walls of stone, which have been thrown across peninsulas, formed by the conflux of two rivers and around the declivities of elevated platforms, while in all instances it is observable that a careful choice had been made of the most stratagetical position. of which every advantage has been taken to construct defensive fortifications on a surprisingly gigantic scale. In the county of Licking (Ohio) between the delta formed by the Raccoon and Newark streams exists an elevated tableland about 35 feet in height upon which are remains of fortifications of great extent. On the west side of the platform existed an octagonal fort enclosing an area of about 40 acres, having stone walls of solid masonry about 9 feet in height, and the same in width at the base, each protected by a tumulus placed in the interior in front of the entrance. Two parallel walls lead to another circular fort at the south west of the first, covering a space of 22 acres; further south is an elevated hillock or observatory which commands a view of the whole position, beneath this a secret passage leads to the opposite side of the river. A third fort exists more to the right, of a circular form enclosing about 62 acres; there was an interior ditch in this out of which earth had been taken to assist in the formation of the wall which ranged from 25 to 30 feet high. Two other parallel walls, run towards the north gradually converging to another fort of quadrangular shape, enclosing a superfices of about 20 acres. These four different forts are connected by rather low walls, and in the centre of the enclosed area is a shallow pond covering 150 to 200 acres, supposed to be artificial and to have been required to afford water to the animals and inhabitants of the place; towers of observation placed upon each of the salient points completed the works at this point. At Marietta near the mouth of the Muskingum exist some very extraordinary ruins among which are two square forts the larg-

est covering 40 acres, these have earth walls from 3 to 6 feet high and widest at the base; 16 openings exist at regular intervals, at one side is a covered way, formed by high walls (21 feet it is said) 120 feet in length, leading down to the river by a gentle slope.

On the valley of the Paint Creek, near Chillicothe, is to be seen one of the most interesting of these ancient fortifications, it is situated upon a hill 130 acres in extent, and at least 300 feet high. The ascent is very steep and is accessable only on one side; around this plateau of elevated ground extends a stone wall. It is said no engineer could have selected a stronger position. On the little Miami and its tributaries and in Ohio, several of these strongholds are said to have existed in which the walls were disposed in a parallel manner as in a gridiron.

Enough has been said to shew that the kind of stronghold erected by these ancients were not of the meaner sort—however the earth works seem to be possessed of the greatest durability—for they have been protected by a growth of forest or thick grass, while the stone structures have crumbled—in most cases—to a mass of ruins, only intelligible to the penetrating glance of the antiquarian.

The Indians themselves know nothing of the origin of these tombs' or the people by whom they were erected, but they hold them in traditional veneration. The Tumuli are massive and pyramidal in form, and some contain a vault within which the remains of the dead are laid—these vaults are usually built of stones placed one above another without any cement, sometimes of wood, or of both combined. The mounds are of various sizes, from 3 to 90 feet in height and from 100 to 700 feet in circumference at the base. In the top there exists altars of baked clay or stone in the shape of large basins, varying from 19 inches to 17 yards in length, but the average is from 2 to 3 yards.

Messrs. Squier and Davis examined a number of these and found the basin to contain usually ashes and remains of calcined human bones, with sometimes a few ornaments, this leads to the belief that the ancient people sometimes burned their dead.

In the larger burial mounds the vaulted chamber usually contains a raised pedestal or altar upon which is laid the human remains. These skelstons are usually covered with sheets of mica, and carefully placed around them are found ornaments, and utensils of various descriptions;—one was discovered near Utah in which a polished silver breast plate lay upon the skeleton—at each side of its head lay what appears to have been two tapers extending upwards—while between the feet was found an earthen vessel of remote antiquity.

Some of the vaults have a stone pavement floor, while others are vaulted and floored with what appears to have been a species of brick or fire clay. In the Southern States funeral urns have frequently been discovered within tumuli of this kind, also beds of charcoal from which it is inferred that fire was used in their funeral rites. In these monuments also have been found ornaments of silver, brass, stone or bone and ornamented beads made of shells, also pieces of silex, quartz, garnet and obsidian, points of arrows, tools of copper, marine shells, sculptures of human heads, or of different animals, fragments of beautiful pottery ornamented with brilliantly colored paintings of butterflies, animals, &c., &c., and several other things indicating a knowledge of art.

Very valuable discoveries have been made in New Grenada, of this kind, where arms, idols and medals were found enclosed in tombs of people whose successors have disappeared for many centuries, and whose enormous wealth is reported by tradition. The archæologists of Panama declare these works of art to belong to very remote Antiquity, and acknowledge them to possess characteristics of both Chinese and Egyptian art.

Domenech describes enclosures made of earth, situated on low flats of circular, elliptical or quadrangular form, but in all cases regular. About 300 yards in circumference, and having one single entrance. Independently of these there are a multitude of small circles about fifty yards in circumference, near which are grouped mounds that appear to have served as altars. The large circles extend over a surface of fifty acres, and are connected with rectangular enclosures by means of broad avenues. These walls are all made of earth. The religious feelings which actuated the authors of these immense and numerous structures, can alone account for their erection.

The learned Abbe Domenech writes of them in these words "If religion were out of the question, it would be difficult to account for the object of works like those of Newark which extend with their avenues over a space of more than four square miles, and to which only the great temples of Abury and Stonehenge in England, and Cornac in Britanny, can be compared.

PROBABLE AGE OF THESE RUINS.

In the valleys of the Ohio, and the Mississippi, where the tumuli and ancient fortifications are found in the greatest number, trees of enormous growth have grown up upon them, the age of which furnish the surest data on which to form a judgement as to the period when these different structures were abandoned.

In 1787 Dr. Cutler found trees of immense size on the ruins of Marietta. Many of those cut down were hollow, but one in which decay had only just commenced,

showed 463 concentric circles, and as naturalists have conceded a years growth to each ring, this tree must have existed more than that number of years. On the ground lay huge decayed trunks measuring six yards in circumference, he then concludes that as these were not the first trees to grow on these ruins, they must have been abandoned 900 or 1000 years ago. On the same spot Sir Charles Lyell relates that in company with Dr. Hildreth in 1842, he saw a tree which when sawn, numbered 800 rings of annual growth. The late General Harrison, President of the United States in 1841, well skilled in wood-craft, remarked in a memoir upon this subject: "Several generations of trees must have lived and died before the mounds could have been overspread with that variety of species which they supported when the white man first beheld them, for the number and kind of trees were precisely the same as those which distinguished the surrounding forest." We may be sure, he observes that no trees were allowed to grow so long as the earthworks were in use, and when they were forsaken, the ground, like all newly cleared land in Ohio, would for a time be monopolized by one or two species of trees, as the white poplar, the hickory, the yellow locust, and the black and white walnut. When these had died out one after another, they would in many cases be succeeded (by virtue of that law which makes rotation in crops, profitable in Agriculture) by other kinds, till at last, after a great number of centuries, (several thousand years perhaps) that remarkable diversity of species characteristic of North America, and far exceeding what is seen in European Forests, would be established. Taking this in connection with the opinion of a celebrated naturalist who assumes that the oak is 500 years in growing, that it remains 500 years in *statu quo*, and is another 500 years in dying, and we get an idea of the great antiquity of the American Tumuli, on which enormous oaks are found growing amid the remains of other oaks reduced to dust from extreme old age.

ANCIENT HIEROGLYPHICS.

Hieroglyphic inscriptions have also been discovered at one time or other, in the States of Connecticut, Georgia, Kentucky Minnesota, Ohio and Rhode Island, while some, remarkably well preserved have, been found in the Islands of lake Erie. The red pipe stone quarries of the meadow hillocks in the western states conceal numbers, while others are met with in New Mexico. The most important and significant of these is that of Dighton rock. This rock is situated at the east of the mouth of the Taunton river in Manchuctka, the width of the rock is about 44 feet and the height in use about 5 feet; the surface is polished either by nature or by the hand of man. For a long time it was covered with moss, detritus and dirt, so that the inscription was not noticed until the middle of the last century, when it became a subject of much interest and scientific discussion. The characters entering into the composition of this inscription are hieroglyphic. kyriologic, and symbolical, the strokes roughly sculptured seem to have been cut in the stone with a cylindrical instrument, the depth of the incision about two lines. It has been attributed by M Mathieu (a french writer) to the Atlandes about the year of the world A. M. 1902, or 2102 B. C. Messrs. Yates & Moulton in their History of New York, say it is of Phenician origin.

In Grave Creek tumuli in western Virginia was also discovered an inscription of much interest. It was found buried with a skeleton in a mound containing two vaults; it is composed of twenty two characters in three lines with a cross and a mask engraved on a dark hard stone of an elliptic shape, about 2½ in. long and 2 in. wide and about five lines thick. Learned men who have examined this inscription most carefully, neither agree on its origin nor on the nature of its characters of which four had a resemblance to the Etruscan signs, four to the Thugga (Africa) five to the ancient Runic in Scandanivia, six to the Towarik, seven to the old characters found in Ireland, ten to the Phœnician, and fifteen to the Cettiberian, several resembling more than one kind of character. The divided state of opinion upon the relic only proves its uncertain character, and causes one writer to ask the questions concerning it, Is it a sign, a motto, an ornament, or an historical remembrance?

There is one fact full of meaning and of great historical significance among the evidences of civilization on this continent, to which I connot help alluding, I refer to the evidences of "fountain worship." The ancient people of Peru, Mexico and the desert plains of the west have left traces, not only of the Phallic worship and its accompaniments but also of that ancient material worship, that believed the spiritual essence of things, to be manifested in the expressions of life around, them, God or Deity was seen everywhere, in everything; and thus they worshipped the sun, the moon, (which they supposed controlled the weather,) the stars, the earth, (which they called their mother,) the sun being "their father"), the rivers and fountains. The Zunis above all, not using artificial irrigation to water their fields, and whose crops therefore depended entirely upon the rain that fell—believe to this day —if they neglect to make their annual offering to the spirit of the fountains their harvests will be destroyed by drought—Thus in Mexico, as in Ireland, Scotland, Ancient Carthage, Persia, Chaldea, Hindostan, China, and Arabia, holy wells are held in great reverence and esteem by

the inhabitants, to which every year, they repair to make their offerings to the spirit of the springs. In the country of the Zuni, one of these is still found; it is seven or eight yards in circumference, and surrounded by a low circular wall. The water is withdrawn once a year, when offerings of varnished pottery are placed upon the wall, there to remain until they fall by accident or time, hence here are to be seen specimens of pottery of great antiquity. They have a tradition that any one attempting to steal one of these offerings would be punished by instantaneous destruction. It is well known that the worship of wells and springs is of Oriental origin and of the highest antiquity, for not only was it practised by the worshippers of Baal, by the Scythians and their descendants, but also by the Chinese, Hindoos, Moors, Persians, Mahomedans, Egyptians, Jews and Celtic populations of Ireland and Scotland, where these objects of a veneration which had a deep hold upon all the ancient Celtic people, were usually situated in the most picturesque spots, on the slops or hills shaded by pines and venerable oaks, amidst rocks covered with heaths, in retreats difficult of access, and above all in the vicinity of an ancient oak, or upright unhewn stone, and in dark and mysterious solitudes where the breeze and the rivulets murmur incessantly, and where the voice of man finds a faithful echo, always ready to make nature resound with the songs and praises, inspired by the piety of the people..

In England, the druids practised this worship, and under the reigns of Canu and Edgar, edicts were promulgated against those who venerated these "Sacred Wells;" while in the Scandinavian manuscript it is related that in the tenth Century a schism arose among the *Americans*, some of whom were accused of despising the "sacred well of vagarseriebat. It is, we think, of the greatest significance, that a worship so ancient and so general in the old world as that of springs, wells and fountains should have been found to exist in the new. In these times people existed who believed that there were spirits who presided over these fountains, rivers and springs, and that these spirits were invisible and hovered around them, and received with pleasure the offerings made to them by men, either as thanksgiving or propitiation.

IDOLS AND SHELLS OF TENESSEE.

I will now turn to a consideration of certain idols, shells, pottery and ancient mummies found in the mounds and caves of Tenessee, which seem to point to an Asiatic or Pelasgian origin. In reference to these remains, the Abbe Domenech writes, "a knowledge of Choncology is by no means unimportant in the study of the origin of the first inhabitants of North America, since it appears that they employed large marine shells for their personal use and for their sacrifices."

The tumuli found in the valleys of the great rivers and the fortified ruins contain a great number of these shells which are mostly of the species known as *murex*; *Cassis Cornutus*; and *Fulgar Perversus*; as also sometimes shells of the species *Maginella Florida* which is very common on the coasts of Florida.

These shells have formed the subject of long discussions among Ethnographers: who are not agreed as to their origin—According to Rumphius the "*Cassis Cornutus*" is found at Amboyna, in the peninsula of Malacca, and on the neighboring shores, Linnæus beleived it to be indigenous to the American coast, but ruguieres (a more modern writer) believes Linnæus mistaken and that the shell in question belongs to the Asiatic ocean, while Humphreys maintains thati tis peculiar to the East Indies, and China. It is never found on the coasts of America, and it is highly probable that it was brought to America from Asia.

IDOLS.

The Idols found in some of the ruins are also believed to be of Asiatic origin, of which perhaps the most curious have also been found in the state of Tenessee, one of these was found enclosed in a small shell of the species "*Cassis flammea*" which is of tropical origin, the others are without shells, and either seated upon their heels or kneeling, the hands being upon the thighs or abdomen, they are naked, and represent different sexes, the largest is about 14 inches in length, they are cut in a stone common to the country. One of the professors of the university of Tenessee is of opinion that all these idols were representations of the ancient Phallic worship, and were similar to those *exposed* in the temples of Eluesis. We are assured, (on the authority of Cortez) that an ancient Egyptian form of worship, recalling the mysteries of Isis and Osiris, was found by the Spaniards established in America. One of these idols appeared to be a badly finished image of the God Priapus. Some are made of a mixture of clay and pounded marine shells, and are easily recognised as a representation of the Tartar type of feature, in the form of the face and the elongated nose and chin. One resembles the the broad round face of the Chinese and has a tuft on the vertex representing the scalp tuft of the Chinaman. The Asiatic type is also seen in a small stone idol found at Natchez, in the state of Mississippi, on the site of an ancient temple, which tradition says existed long before the arrival of the Europeans, while pipes of extraordinary workmanship have been found at a great depth in Ohio.

MUMMIES.

The existence of American mummies

swathed in the veritable manner of the ancient Egyptians, excited no little surprise and comment at the time of their discovery. They were found only in the neighborhood of large rivers, where vessels could easily approach, they evidently belong to a race anterior to the red Indian and from their discovery some writers argue that the ancient inhabitants of the Continent were Egyptians or at least came from the Mediterranean shores, while the learned Dr. Mitchell endeavors to prove that the ancient inhabitants of America were of Malay origin, and resembled the natives of the Islands of the *Polynesia* and *Australasia*. He founded this opinion on the resemblance of the cloth in which these mummies were enveloped, to that brought from the Sandwich and Fegee Islands, which is similarly made of fine cord, doubled and twisted by hand, and again on the fact that feather mantles are applied to a similar use by the Islanders of the Southern ocean. These mummies were found in great numbers in Kentucky, in the mammoth cave near Louisville. This cave contains a large quantity of nitre, and the preservation of these mummies is attributed to its presence. Domenech describes one of these found nine feet below the surface of the soil: it was placed between two large stones, and covered by a flat slab, the knees were drawn up to the chest, the arms crossed, and the hands folded one over the other at the height of the chin. The hands, nails, ears, hair, teeth and all the features were in perfect preservation. The skin resembled leather of a yellowish color, and no traces of an opening in the body could be detected. Though this mummy was that of a person six feet in height, it was so dried up that it did not weigh more than fourteen pounds. This body was not surrounded by either bandages or any bitumious or aromatic substance, but was wrapped in four coverings. The first or interior one was composed of a stuff made of fine cord doubled and twisted in a peculiar manner, and of large feathers interwoven with great art, the second wrapping was of the same stuff, but without feathers, the third consisted of a deer skin without hair, and the fourth and external covering of another deer-skin but with hair. The bodies of a man and woman found in a saltpetre cave in Warren county, Tenessee, are also described by the same writer, these were wrapped in deer-skins and in a cloth made of the fibres of the bark of trees and ornamented with feathers, while in the hand of the female was a fan composed of Turkeys feathers and made to open and shut at pleasure. These relics of a past age have greatly occupied the attention of American antiquaries, but the race to which they belong, although evidently anterior to the Indian, is not decided. Naturalists tell us that the *horse* is not a native of the American continent, that it is (according to Linnæus,) a native of Europe and the East; while Goldsmith believes it to be a native of Africa. Although it is difficult to say from what country of the Old World the *horse* came; according to the Ancients it is a native of Europe, and yet, when the European first set foot upon the continent, vast herds of these animals, in a wild state, were found roaming at will over the immense plains of the west. Nothing can be more suggestive than the presence of these animals; may we not believe them to be the descendents of the domesticated animals once used by the ancient agricultural population, who were the primitive possessors of the soil. However, on this matter Goldsmith writes thus, "These American *horses* cannot be ranked among the wild races, since they were originally bred from such as were tame. They are of a Spanish breed; (?) (he continues) which being sent thither upon its first discovery, have since become wild, and have spread over all the South of that vast Continent almost to the Straits of Magellan. It is not in the New but in the Old World that we are to look for the animal in a true state of nature; in the extensive deserts of Africa or Arabia, and those wide-spread countries that separate Tartary from the more Southern nations." And then there are herds of *sheep* in the north of Mexico, apparently quite wild. Of these there are two varieties—one called the "Rocky Mountain Sheep," found inhabiting the elevated region between the 48th and 60th parallels of north latitude, and near the head waters of the Columbia, the country at the sources of the Marais, the Saskatchawan and Arthabaska rivers, but less numerous on the Eastern than on the Western slope of the Rocky Mountains—and a second, bearing the name of the American Argali or Ovis Pygargus, believed to be identical with the Ovis Ammon of Central Asia, Siberia and Kamschatka. In the time of Hernandez, it was known by the name of the "Sheep of California." It is believed to be undoubtedly of Asiastic origin, and its introduction to America to be of comparative recent date, since it has not spread east of the mountain range or south of Calfornia. Then the *wild bison* are also found in large herds, (of which the domestic ox is a variety), these together with immense flocks of *wild turkeys*, hold high carnival in a state of perfect liberty among the luxurious pastures of the great prairies of the west. The *turkey* was supposed by some to be a native of Peru, South America, but it is believed by others to be a native of the East Indies or Japan, probably some of the isles of the Indian Ocean, whence it was brought to America by the ancient Malayan maratime adventurers.

Tropical plants and varieties of grasses

indigenous to other countries only, are found growing in the western sections of the continent, among these are the Maize and garden Bean.

We draw from the various relics which have been mentioned, and others time will not permit us to refer to, that a great and powerful people, advanced in the arts and agriculture, and acquainted with the use of metals, held sway over this continent prior to the red Indians. Ruins of ancient Pueblos, remarkable for their construction and immense size, some of which were constructed on opposite sides of streams, and connected by bridges, are scattered over the country, south of the great plains of the west. The Configuration of the soil, the existence of river-beds, long since ceased to flow, whose banks, once gay with a tropical verdure, plants, flowers and trees, have now given place to deserts of sand, presenting everywhere a picture of desolation, so that Domenech and others who have explored these regions and written upon them, believe that at some indefinite period this whole territory was densely populated by a settled agricultural people, but who, by some great geological change, (perhaps volcanic) taking place in the country, changing the soil from a rich and fertile country, well watered, to a dry, barren, sandy desert, were compelled to seek a settlement elsewhere.

Domenech suggests that the great centres of this ancient civilization, was near the great lakes in Ohio, and in Mexico and Peru, whither the natives repaired to have commercial interchange with each other. This he gathers from the discoveries of mica sheets, from the Alleghanies, shells from the Gulf of Mexico and Florida, and Obsidian from the mountains of Mexico, and tools of copper, with specimens of ore from Lake Superior, which are found buried, together with ornaments of silver, brass, stone, and bone in the ancient mounds of the Ohio, and whose origin and history seems as impenetrable as the night of ages.

In the history of mankind, we have recognised the *age of rough stone implements*, or the age of primitive barbarism. The *age of polished stone implements*, or the dawn of civilization, the *age of copper tools*, the *age of brass ornaments and tools*, and the *modern* or *iron age* in which we live. To one of these ages every relic of the past belongs. Those found in America, represent the three first ages, or those of rude and polished stone and the age of copper.

If it be granted that relics of a past civilization exist in the continent, which, no one will deny, then it becomes a matter of interest to enquire whether among the ancient traditions of America or the writings and mythologes of the old world, any traces can be discovered of an acquaintance with this continent among the people of the other hemisphere.

Inquirers of the greatest care and intelligence believe that communication between the two hemispheres, did exist at a very remote period. Evidence of this they discover in the ruins to which we have referred, and the traditions of ancient America, as well as in the traditions and myths of classical antiquity.

The antiquities of Mexico and Central America, reveal religious symbols, devices, and ideas nearly identical with those found in all countries of the old world, where cushite communities formerly existed. They exhibit evidences of planet worship, with its usual orphic and phallic accompaniments. Humbolt visited America, observed these remains of civilization, and was convinced that communication with the old world formerly existed. The Abbe Domenech also traversed the desert wilds of America and Mexico, and produced two volumes as the results of his discoveries, abounding with evidences of an extinct civilization.

Humbolt found evidences of it in the religious symbols, the architecture, the hieroglyphics, and the social customs made manifest among the ruins; which he was sure came from across the seas, and in his view, the date of this communication was older than the present division of Asia into Chinese, Mongols, or Tartars, and Hindoos (natives of India). [*Vide Researches concerning the institutions and monuments of the ancient people of America.*]

The high state of agriculture, mechanical art, commerce, the profusion of gold and copper, and the religious views and domestic manners which were found to exist among the long since extinct Aztec and Zezcucon peoples, found in possession of the eastern shores of Mexico by the rapacious Spaniards are suggestive of a long period of peaceful possession and prosperity in that country, during which time they had succeeded in surrounding themselves with every conceivable kind of luxury; and there are traces of a superior civilization even beyond the Aztecs. They possessed a system of numerals, and divided their years into 18 months of 20 days each—five complimentary days (as in Egypt) being added to make up the full number of 365 days.—They were also devoted astrologers, and their knowledge of astronomy is truly astonishing. They used the sun dial to mark the day, which was divided into 16 parts, commencing at sunrise. An immense circular block of carved stone, disinterred in 1790, in the great square of Mexico, has supplied the means of establishing some interesting facts in regard to Mexican science. This colloseal fragment, on which the calender is engraved, shows that they had the means of settling the hours of the day with precision, the periods of the

solstices and of the equinoxes, and that of the transit of the sun across the zenith of Mexico.

It is hardly possible that a nation so far advanced as the Aztecs in mathematical science, should not have made considerable progress in the mechanical arts. Indeed, a degree of refinement is shewn by intellectual progress of any kind requiring as it does a certain cultivation of both useful and elegant art. Agriculture in Mexico was in the same advanced state as the other arts of social life, their chief productions consisted of beans, Indian corn or maze, banana, the cacao—from which chocolate is derived—the vanilla, used for flavouring their food and drink. The gigantic stalks of the great staple, Indian corn, afforded them a sacharnie matter which supplied the natives with sugar, little inferior to that of the cane itself; but the most miraculous production of their soil was the great Mexican aloe, or Maquey tree, whose clustering pyramids of flowers towering above their dark coronals of leaves, were seen sprinkled over many a broad acre of the table-land. Its bruised leaves afforded a paste from which they manufactured paper, its juice was fermented into an intoxicating beverage, called *pulque*, of which they were excessively fond; with its leaves the more humble dwellings were thatched; thread of which coarse stuffs were made, and strong cords were made from its tough and twisted fibres; pins and needles were made of the thorns on the extremity of its leaves; and the root, when properly cooked, was converted into a palatable and nutritious food, it furnished, in short, meat, drink, clothing and writing material for the Aztec.

We could not here enumerate the great varieties of plants—many of great medicinal virtue—which have been introduced into Europe from those regions. Its flowers also are of the most variegated and gaudy colours, and now form the greatest attraction of our Greenhouses. They were well acquainted with the mineral as well as the vegetable treasures of their country. They drew silver, lead and tin, from the mines of Tasco; also copper from the mountains of Zacotollan, taken not only from the crude masses on the surface, but also from veins wrought in the solid rock, into which they opened extensive galleries. Gold was found on the surface and gleaned from the beds of rivers; they cast it into bars, in which state, or in the form of dust. it made part of the regular tribute. Iron existed in the soil, but they knew nothing of its uses. They found a substitute in an alloy of tin and copper; and with tools made of this bronze, could cut not only metals, but it is said, with the aid of silicious dust, the hardest substances, as basalt, porphyry, amethysts and emeralds. They fashioned these last, which were found very large, into many *curious* and fantastic forms. They cast, also, vessels of gold and silver, carving them with their metallic chissels in a very delicate manner. Some of the silver vases were so large that a man could not encircle them with his arms. They imitated with great nicety, the figures of animals, and, what was extraordinary, could mix the metals in such a manner that the feathers of a bird, or the scales of a fish, should be alternately of gold and silver.

They used another metal, made of *Itztli*, or obsidian—a dark transparent mineral, exceedingly hard, found in abundance in their hills. This they made into knives, razors and serrated swords. It was said to take a keen edge although soon blunted, and with it they wrought the various stones and alabasters employed in the construction of their public works and principal dwellings. These ancient Mexicans made utensils of earthenware for their ordinary purposes of domestic life. They made cups and vases of a lacquered or painted wood, impervious to wet, and gaudily colored. Their dyes were obtained from both mineral and vegetable substances. Among these was the rich Cochineal, the modern rival of the farfamed Tyrian purple—with this they gave a brilliant colour to the webs which were manufactured of every degree of fineness from the cotton plant—which grew in abundance in the southern parts of the country. The had the art, also, of interweaving, with these the delicate hair of rabbits and other animals, which made a cloth of great warmth as well as beauty, and of a kind altogether original to themselves, on this they often laid a rich embroidery of birds, flowers or some other fanciful device. But the art in which they most delighted was their plumage or feather work, and with this they could produce all the effect of a beautiful mosaic.

The gorgeous plumage of the tropical birds, especially of the parrot tribe, afforded them every variety of color: and the fine down of the humming bird, which revelled in swarms among the honey suckle bowers of Mexico supplied with soft ærial tints, which gave an exquisite finish to the picture. The feathers pasted on a fine cotton web, were wrought into dresses for the wealthy, hangings for apartments, and ornaments for the temples. The profusion in which gold existed in Mexico and Peru, and the estimation in which it was held by these ancients was best seen in the manner in which it was used in liberal decorations of their temples "which one writer says "shone resplendent by reason of the abundance in which it was used" and for the adornment and magnificence of their princes. Of these the Tezcucans displayed by far the most magnificence. Their gardens, palaces, fountains and temples exceeded those of every other portion of the country, a detailed account of which is given by Prescott in his reference to the golden age of

Tezcuco.

Translations in the English and Spanish languages have been made of ancient manuscripts found in Mexico by the Spaniards at the time of the conquest of that country—one especially contains the advice of an Aztec mother to her daughter on the occasion of her marriage—inculcating the precepts of monogamy; conjugal fidelity, the idea of a Supreme Being to whom we are responsible, and who sees all our actions. This document also contained an admonishment to the bride to persevere in the practice of those graces and virtues which had adorned her ancestors—advice in fact altogether equal to what might be expected of a Christian mother of the present day.

The Abbe Brasseur De Bourbourg shews that the symbols of phallic worship were described by spanish writers at the time of the conquest. That they were prevalent in the countries of Central America, abounding in *Colhuacan*, a city on the Gulf of California and at Panuco, (the former was at one time a flourishing city and the capital of an important kingdom)—here Phallic institutions had existed from *time immemorial*. In the temples at Panuco, phallic symbols abounded, and also on the public monuments. These with the serpent devices, the sun worship, the remarkable knowledge of astronomy accompanying them, shews a system of religion of which, the Abbe says: "Asia appears to have been its cradle as also that of the social institutions which it consecrated."

The traditions of the inhabitants of Mexico and Central America are very explicit, they uniformly assert that the ancient American civilization came originally from the East "across the ocean."

The Abbe de Bourbourg speaking of the earliest civilization of the inhabitants of these countries says: the native traditions generally attribute it to "bearded white men, who came across the ocean from the east." The history of Sahagun also states that according to the traditions of the people of Yucatan "the original civilizers came in ships from the east." Montezumo related a similar tradition to the spaniards. There were in Central America three classes of ancient inhabitants, first the Chichimiecs, who seem to have been the uncivilized aborigines of the country: The Colhuas, who were the first civilizers, and who were "the bearded whitemen" who came in the earliest times across the Atlantic, and who built Palenque and other cities, originated the oldest and finest monuments of the ancient civilization, and established the great kingdom of Xibalba celebrated in tradition and history; it comprised Guatamala, Chiapas, Yucatan, and probably other countries.

The third class of inhabitants mentioned, are the Toltecs, a powerful race, (whom Humbolt believed derived their origin from the Huns,) who came much later as peaceable immigrants, but uniting with the uncivilized Chichimecs caused a civil war and gained the ascendancy over the land, *Desiri Charnay*, speaking of the ruins of the ancient city of Mitla, points out that the most ancient architecture, paintings, mosaics and artistic designs are in the the highest style, shewing marvellous workmanship, while the later additions are in a much lower style and seem to be the work of a people less advanced in culture and skill than the original founders of the city.

The finest and most remarkable monuments found in these countries are believed to be remains of the ancient kingdom of Xibalba. Other traditions point to an existing acquaintance with the country among the Malays and Chinese. The Abbe De Bourbourg relates that there was a constant tradition among the people who dwelt on the Pacific ocean, that people from distant countries across the Pacific, formerly came to trade at the ports of Coatulco and Pechugui which belonged to the kingdom of Tehauntepec.

Again, the traditions of Peru tell of people who came to that country. by sea and landed on the Pacific coast, probably the Malays of the great Malayan maratime empire that flourished in ancient days.

If we now turn to the ancient writings, traditions, and mythology of the old world we will find much that points directly to an acquaintance with the "Atlantic or continent beyond the sea," which either refers to America or is utterly meaningless, which latter opinion is not entertained by any antiquarians of the present day.

In ancient mythology there is reference to "a great continent beyond the *Cronian* sea, meaning the Atlantic. And it was in the Atlantadis of Homer and Horace, 'beyond the 'western waters' that the ancient poets placed their "Elysian fields."

Theopompus, a learned historian and celebrated orator, who lived in the days of Alexander the Great, relates in his book entitled Thaumasia, a very ancient dialogue which took place between Midas, king of Phrygia, and Silenus, in which the latter is made to say "there is a continent bevond the sea, the dimensions of w .ch are immense, almost without limit, greater than Asia, Europe and Lybia (Africa) together; and so fertile that animals of prodigeous size, are to be seen there; as likewise a race of men, calling themselves Meropes, whose statue is much greater than ordinary men, and who attain to an extreme old age; that a great many large towns and cities were to be found in that continent, one of which contained above a million of inhabitants; and having different laws and customs from those of the people of Asia, Africa and Europe; and finally, that gold and silver were found very common over a" the surface of that vast country.

Another writer narrates that these Meropes were so persuaded that there was no continent but their own, that out of curiosity alone some of them crossed the ocean and visited the hyperboreans. Another ancient writer, Diodorus of Sicily, in his fifth book chapter 11, has an important passage concerning this continent which is not mythical but historical, in which he affirms that some Phenicians were cast upon the shores of an exceedingly fertile island situated opposite to Africa.

The passage runs thus: Over against Africa lies a very great island in the vast ocean, many days sail from Lybia westward. The soil is very fruitful, it is diversified with mountains and pleasant vales, and the towns are adorned with stately buildings. Its shores are indented with countless navigable rivers, its fields are well cultivated and dotted with delicious gardens, and with plants and trees of every sort, finally he describes it as being the most beautiful country known, with inhabitants who live in spacious dwellings and every kind of abundance, of this the learned Domenech says, the recital made by Diodorus exactly corresponds with that of the first Spaniards who landed in Mexico.

It is narrated of *Hanno*, who lived before the foundation of Rome, perhaps 800 B. C. that he made a voyage beyond the pillars of Hercules and visited a strange coast, which he reached by keeping due West, after traversing the ocean for thirty days. The best authors suppose this coast to have been America or one of the West India Islands, Homer, Horace and Solon, speak of the Atlantides as being islands situated at a distance of ten thousand *stadia* (a stadia is 606¾ English feet) west of Europe and Africa. Aristotle speaks of an island placed beyond the straits of Hercules in these words: "It is said that the Carthagenians have discovered beyond the pillars of Hercules, a very fertile island, but which is without inhabitants, yet full of forests, navigable rivers and abounding in fruit, it is estimated many days voyage from the mainland."

Plutarch, also, has a passage quoted by Humbolt, in which mention is made in unmistakable terms of a great transatlantic continent, and of a mysterious stranger, who came from that distant country to Carthage, where he lived many years, about 300 B. C.

According to Cabrera, the first Carthagenian emigration to America took place during the first punic war.

According to Sandoval, a succession of emigrations came from Ceylon, Java, and from the south of India to America, many centuries before Christopher Columbus. In support of this, carved figures representing the god Boudha of Java, seated on a Siva's head, were found at Wxmal, in Yucatan.

It is well established that a knowledge of the American continent existed in China and Japan long before the time of Columbus. M. de Guigies relying upon the Chinese chronicles preserved in the Chinese work entitled *Pran. y. tien*, attributes the Peruvian civilization to emigrations proceeding from the Celestial empire from Japan and the East Indies; recent investigations seem to confirm this opnion. M. Paravey in the year 1844, proved that the province of Fusany described in the Chinese annals was nothing less than Mexico, known to them in the 5th century, and the Abbe De Bourbourg says in his introduction to the *Popol-vuh*. "It has been known to scholars nearly a century that the Chinese were acquainted with the American continent in the 5th century of our era, their ships visited it, they called it Fu-sang, and said it was situated at the distance of 20,000 li (about 7000 miles) from Ta-Han."

A competent authority upon these matters J. Hanley, the Chinese interpreter, in San Francisco, has lately written an essay upon this subject in which he makes the following startling statements, drawn from Chinese historians and geographers.

Fourteen hundred years ago even America had been discovered by the Chinese, and described by them. They stated that land to be about 20,000 Chinese miles distant from China. About 500 years after the birth of Christ, Buddhist priests repaired there, and brought back the news that they had met with Buddhist idols and religious writings in the country already. Their descriptions, in many respects, resemble, those of the Spaniards a thousand years after. They called the country "Fusany." after a tree which grew there, the Maquey tree, whose leaves resemble those of the bamboo, whose bark the natives made clothes and paper out of, and whose fruit they ate. These particulars correspond exactly and remarkably with those given by the American historian, Prescott, about the maquey tree in Mexico. The accounts given by the Chinese and Spaniards, although a thousand years apart, agree in stating that the natives did not possess any iron, but only copper; that they made all their tools, for working in stone and metals, out of a mixture of copper and tin; and they, in comparison with the nations of Europe and Asia, thought but little of the worth of silver and gold. The religious customs and forms of worship presented the same characteristics to the Chinese fourteen hundred years ago.—

There is, moreover, a remarkable resemblance between the religion of the Aztecs and the Buddhism of the Chinese, as well as between the manners and customs of the Aztecs and those of the people of China. It is, at any rate, remarkable and confirmative of the idea of emigration from China to America at some remote period, that at the time of the discovery of America by the Spaniards, the Indian tribes on the coast of

the Pacific, opposite to China, for the most part, enjoyed a state of culture of ancient growth, while the inhabitants of the Atlantic shore were found by Europeans in a state of original barbarism."

The stone arrow-heads, lance-heads, and hatchets found in Europe, India, Japan and America, resemble each other so closely that it is often impossible to distinguish them by their form.

This fact does not necessarily answer the question whether they were all formed by one aboriginal race, as it is possible that similar wants would produce similar weapons all over the world. It is remarkable that everywhere, except in America, these weapons are believed by the common people to be thunder-bolts. They are called elf-bolts in Scotland, and Pliny speaks of them as *ceraunix*, while the same origin is ascribed to them in China and Japan.

M. Leon de Rosny has ascertained that Fusang is the topic of a curious notice in the great Japanese Encyclopedia, which enjoys the interesting name of the "Wa-kan-san-tai-dron-ye." In that work it is said to be situated east of Japan, beyond the ocean, at the distance of about 20,000 Chines miles from Ta-nan-konek. Great stress is laid upon these Chinese and Japanese records, for they are a people that do not deal in myths, but in actual facts and historical events.

We will now turn our attention to the Atlantic shores and enquire into the early discovery of our continent by Europeans, prior to Columbus.

To follow the chronological order of events, as they seem to have transpired here, we must first refer to the early emigration of the Ires or tribes from Ireland, who emigrated to America by way of Iceland, at rather uncertain epochs.

The opinion of learned men, familiar with the antiquities of the new world is, that as in the most ancient documents of Iceland, (as may be seen by the manuscript,) the first inhabitants of that island are called "men come from the West, by the sea." We must consequently conclude that Iceland was not peopled by colonies coming direct from Europe, but by Ires who had returned from America who, at an early period had been transplanted, and who returned from Virginia and the coast of Carolina (called great Ireland) to settle in the island of Papar and the southeastern coast of Iceland. In the ancient records of Iceland are given accounts of christian *Papas* or fathers who returned from great Ireland on the west, (America) to Iceland to instruct them in the principles of the christian religion, about 800 years after the birth of Christ. Accounts are given also of persons who having been cast away in ships, landed upon a western coast (called "huitra manna land" or the "country of the White Men.") These stories are considered as authentic and are considered an important proof in favor of the prevailing opinion that at a very early period of the christian era, Irish colonies existed on the coast of the Carolinas and farther south. These events transpired about A. D. 800, and are the first authentic accounts that we possess of a discovery of the main portion of the North American Continent by Europeans. The learned Abbe Brasseur de Bourbourg in a note to his translation of the Popol-Vuh, says on this matter, "there is an abundance of legends and traditions concerning the passage of the Irish into America, and their habitual communication with that continent, many centuries before (perhaps 600 years) Columbus was heard of.

An Irish saint named Vigile, who lived in the 8th century was accused by the Pope Zachary of having taught heresies on the subject of the antipodes. He at first wrote to the Pope in reply to the charge, but afterwards went to Rome to justify himself, and there he proved to the Pope that the Irish had been long accustomed to communicate with a trans-Atlantic world. These facts are preserved in the records of the Vatican.

It is now a historical fact also that the Northmen, sailing from Iceland not only discovered America in the tenth century, but also established colonies on the coast of New England, and preserved communication with these colonies for two centuries. In 877 Gunbiorn—the Iceland navigator—first saw the mountainous sea-board of Greenland.

It appears from the Scandinavian manuscripts, in which are to be found the accounts of the Normans first voyages to America, that in 983 the celebrated Ari Marsson whilst sailing southward, was cast by a storm upon the American coast, to which he gave the name of *Irland it Mikla* or Great Ireland.

In 986 Eric, surnamed the Red, established on those shores the first colony composed of Iceland emigrants, afterward in 1124, a bishopric was erected here called Gardar, which lasted for upwards of 300 years.

In 986 Bvarne Herjufson sailing southward from Greenland discovered the island of Nantucket, afterwards Nova Scotia, then Newfoundland. In the year 1000, Lief the eldest son of Eric the Red, sailed with 35 companions in search of new discoveries, when he discovered Newfoundland and called it Litla Helluland, re-embarking he arrived in the country situated between New Foundland and Canada, which he called Markland (now Labrador) pursuing his expedition further south he landed on an agreeable coast, where he found an abundance of vines, which he called Vinland, (now New England) here he made a settlement, which flourished for a length of time, and was visited in 1121 by the first bishop of Greenland, Eric-Upu of Irish origin, for the purpose of confirming the the colonists

of Vinland in the doctrines of christianity. In the year 1002 another expedition under Thorwald visited this coast and landed at Cape Cod, near Boston, where he was killed in an encounter with the Esquimaux. In the year 1006 Thorstein embarked on a similar expedition but was unsuccessful.

In 1007 Thorfinn the most celebrated of the first explorers of America, landed on the island called *Marthas Vineyard*, on the New England coast, and spent two winters in bay of Mount Hope, close to Seconnet. From this time to the middle of the forteenth century, very little can be ascertained concerning those Scandinavian American colonies. In the twelfth century Norwegian colonies existed in Greenland. In 1170 A. D. the Welsh prince Madog was quite certain of the existence of America, for it is said he sailed away westward going south of Ireland, to find a land of refuge from the civil war, which raged among his countrymen. The Welsh annals tell us that he found the land he sought. and having made preparations for a settlement, he returned to Wales secured a large company that filled ten ships and then sailed away again and never returned. With reference to this Welsh colony. In 1660 the Rev Morgan Jones (a Welsh clergyman) seeking to go by land from South Carolina to Roanoke was captured by the Tuscarora Indians. He declares that his life was spared because he spoke Welsh, which some of the Indians understood; that he was able to converse with them in Welsh, that he remained with them four months preaching to them in Welsh.—Dr. Williams in his work on the "story of Prince Madog's emigration," published in 1791 explained Mr. Jones' statement by assuming that the Welsh colony becoming weakened had became incorporated with those Indians, and it is well known that in early colonial times the Tuscaroras were sometimes called "White Indians." The Northmen had colonies in New England long before Prince Madog's colony went there, and one able writer on this subject says "It is not so well known, but is nevertheless, quite true, that *they* were preceeded in Iceland by the Irish, and in voyages to America by the Irish and Basques; the latter he says were adventurous fishermen. who were accustomed to visit the north-east coast of America from time immemorial."

Thus we think sufficient evidence is afforded by ancient European records to warrant us in believing that America was not unknown to the Ancients and was comparatively well known to Europeans in the early part of the Christian era, centuries before Columbus is heard of. or the classics dreamt of changing their patristic geography.

The period or extent of time that must have elapsed since the abandonment of the ancient monuments of America, of which we have spoken—sufficient to allow of forests of so ancient a character to have become established upon them—taken, together with the other evidences of antiquity, lead us to the opinion that the people by whom they were erected, lived and flourished at a time contemporary, almost, with the ancient Egyptians, Chinese and Phœnicians; this being the case, we are told that those nations claim an antiquity which is almost fabulous.

We are led to believe by the biblical chronoligies extant in the present day, that the earth itself is scarce 6000 years old, yet viewed in the light of science, and remembering the fact, that the inspired writings furnish no date whereon to found any other than a speculative chronology, we accept the dictation of our reasoning and agree with the learned Abbe Millot, who says: "Providence des.gned revelation to make men holy, not learned. Let us adore its oracles and mysteries, but let us not attempt to explain what is inexplicable." Freely confessing our disbelief of that Patristic chronology, which places the birth of our race at a period as but yesterday, and whose votaries are constantly predicting the early consumation of all things. It is a matter of satisfaction to my mind, that a belief in the generally accepted chronology of the day, is not essential to salvation, and is not made among Christians of the present day, an act of scepticism to dissent from. The Almighty has given two books of revelation, Nature and the Bible. When I look into the one I am told in the beginning God created the heavens and the earth. "*The beginning!*" how long ago?—it does not tell me. I look into the book of nature, which proclaims in such eloquent tones, the wisdom and design of the Creator, and which cannot tell an untruth and I find it tells me of effects of such magnitude as to imply prodigiously long periods of time for their accomplishment, making its *moments* appear eternities. What will you say if in it we read that there are fossiliferous rocks which have been slowly raised ten thousand feet above the level of the sea, and that so late in the world, history as since the beginning of the tertiary period; What if it tells us that the peninsula of Florida which is fossiliferous (upon which are found ruins of ancient races abandoned over a dozen centuries since) has not required less than 135,000 years in the process of its formation; What if it tells us in language most unmistakable, that the coal deposits of the earth, which once in their history were immense dense forests of gigantic fern trees and grasses must have required a period of 240,000 years, as the minimum time, for their accumulation (assuming that it is impossible to suppose that they were formed faster than at the rate of one tenth of an inch in a year), and this unfolds to us but a fragment of geological time.

Or if we discover from it that the great chasm, seven miles in length, through which flows the Niagara River, from Goat Island

to Queenston heights, required a period of over thirty thousand years for its excavation. Or that in certain fluviatile beds, numerous specimens of the Mastodon-Giganteus have been found, on the shores of lake Ontario, one at a great depth in Burlington heights, Hamilton, and one in the old river bed on Goat Island; and that these individuals must have lived and flourished (says Sir Charles Lyell in his "Age of deposits in North America,") previous to the gradual excavation of that deep long chasm, for this ravine is not only post glacial but also posterior in date to the mastodon bearing beds. Or, again, if the depression of the fern forests, which now form the coal beds of Nova Scotia took place at the rate of four feet in a century, there were required a period of 375,000 years for their completion to their present depth. Or, as a forest in a thousand years can scarce produce more than two or three feet of vegetable soil, the dirt beds are the work of hundreds of centuries. Or, if it tells us that the delta of the Mississippi could only have been formed in many tens of thousands of years (estimated by Sir Charles Lyell at 100,000) and that four successive Cyprus forests lay buried in its depths, and yet that it is only as a work of yesterday, compared to the inland terraces of the Mississippi river. That skeletons have been disentombed in this same Delta to which Dr. Dowler assigns an antiquity of 10,000 years at least; or if, as Sir Charles Lyell says it he admitted that the human remains discovered at Natchez in connection with those of the Mastodon and Megalonyx—were found in their primitive bed—then a race of human beings must have occupied that country more than a thousand centuries ago. Enough however is known to prove that all our conceptions of the age of the earth and man's antiquity thereon, require remodeling and a careful reconsideration, while to many of us, who with difficulty shake off our patristic chronology, such statements appear extraordinary; and yet, they are the careful deductions the most learned and profound geologists have formed from their readings of the book of nature.

Who, then, will say that sufficient time has not elapsed for a numerous people to have penetrated the western shores of America, to have pressed forward to be a mighty nation, extending their civilization all across our continent, and to have been driven into forts and finally exterminated by those warlike savages, the red Indians, swooping down upon them from the North West? Or that Shelley was not partly right, when he penned that bold, but beautiful line, "Thou canst not find one spot whereon no city stood."